

REMARKS

This paper responds to the Office Action mailed on January 19, 2007.

No claims are amended, no claims are canceled, and no claims are added; as a result, claims 36-45 are now pending in this application.

§102 Rejection of the Claims

Claims 36-39 and 41-45 were rejected under 35 U.S.C. § 102(e) as anticipated by U.S. Patent No. 5,756,155 to Tzeng *et al.* (hereinafter, “Tzeng”). Claims 36-39 and 41-45 were also rejected under 35 U.S.C. § 102(e) as anticipated JP Publication No. 08-017708 to Sukenari (hereinafter “Sukenari”). Applicant disagrees with the stated grounds of rejection and desires to further clarify various distinctions of the present invention over the cited art. Reconsideration of the present application is therefore requested in light of the following remarks.

Tzeng discloses a nozzle assembly that is configured to direct a fluid towards a substrate that includes a self-cleaning feature. Tzeng suggests that the nozzle assembly eliminates an undesired fluid release from the assembly that may be deposited on an underlying substrate due to fluid accumulations forming on the nozzle that subsequently fall onto the substrate.

Accordingly, the reference discloses a fluid dispensing nozzle having a vacuum shroud that captures the excess fluid (*e.g.*, fluid dripping) from the nozzle. Applicant cannot identify *any* disclosure in Tzeng that teaches that the vacuum shroud is intended, much less effective, in capturing fluid that is first directed at the substrate, and then suctioned away from a surface of the substrate.

With reference now to Tzeng, the Examiner is directed in particular to the disclosure present in column 1, lines 65-67, bridging to column 2, lines 1 through 44, which provides, *inter alia*, that the “...improved combination nozzle and vacuum hood...will pull a vacuum around the outside of the nozzle tip *which will pull residue from the nozzle.*” (Emphasis added). The Tzeng reference further provides, at columns 1 and 2 that the invention entails a “method of spraying a wafer with a media *without dripping media residue from the nozzle onto the wafer.*” (Emphasis added). Still other disclosure is present in Tzeng that teaches that the vacuum hood is directed *solely* to cleaning fluid residue from the nozzle, and *not* from a surface of the substrate.

The Examiner is referred, for example, to column 3, lines 21-24; column 4, lines 24-26; column 5, lines 35-40; column 6, lines 23-27; and column 6, lines 41-47.

Nevertheless, the Examiner maintains that the structure disclosed in Tseng is *inherently* capable of providing fluid suctioning from an edge of a substrate. The Examiner is reminded that the mere assertion that a certain result or characteristic *may* be is simply insufficient to establish the inherency of that result or characteristic. “To establish inherency, the extrinsic evidence *must make clear* that the missing descriptive matter *is necessarily present in the thing described in the reference...and may not be established by probabilities or possibilities*. The mere fact that a certain thing *may* result from a given set of circumstances *is not sufficient.*” *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999) (emphasis added).

In the present instance, the Applicant respectfully submits that Examiner has premised her rejection on just such “probabilities and possibilities” of inherency. There is, in fact, no suggestion that the structure disclosed in Tzeng is capable of providing a suctioning capability that would be operable to remove a resist-laden solvent from a surface of a semiconductor wafer. The Tzeng reference *clearly* teaches *only* that the suctioning nozzle is intended to suction excess material remaining on a fluid distribution nozzle that is proximate to the suctioning nozzle to prevent dripping of the fluid onto a surface of the substrate.

The Examiner also relies on Sukenari as an anticipating reference. Sukenari discloses an apparatus that is configured to accelerate the exfoliation (*i.e.*, flaking or scaling off) of a resin film, or other similar materials from a surface of a substrate. With reference to Figure 1 in the Sukenari reference, the apparatus includes a light source configured to project ultraviolet radiation towards a substrate (element 11), and gas discharge “assist” nozzles (elements 13 and 15) configured to intermittently direct “assist” gases from a pressurization source to a surface of the substrate. The assist gases chemically react with the irradiated material on the substrate, thus effecting removal of the undesired material. For example, the assist gases include oxygen and ozone, as shown in Figure 2 of the Sukenari reference. The Sukenari reference does not disclose or suggest that a vacuum source may be coupled to the apparatus for any purpose. Consequently, the Applicant fails to understand how Sukenari is pertinent as an anticipating reference.

The Examiner, however, insists that the gas discharge “assist” nozzles (elements 13 and 15) inherently teaches “...a vacuum in order for evacuation or exhausting to occur...”.

Applicant strenuously disagrees. Again, inherency cannot be asserted where the evidence may suggest only “probabilities and possibilities” of inherency. In the present case, there is no suggestion, and in fact, no possibility of inherency since no vacuum source is disclosed or suggested.

Claims 36-39 and 41-45 are therefore presently allowable over the Tzeng and Sukenari references.

§103 Rejection of the Claims

Claim 40 was rejected under 35 U.S.C. § 103(a) as being unpatentable over the Tzeng or the Sukenari references. Applicant disagrees with the Examiner’s rejection since the cited art neither discloses or fairly suggests the subject matter embodied in the base claim 36. For example, Applicant asserts that the Tzeng reference *teaches away* from claim 36 since the reference teaches removing excess fluid material from the fluid distribution nozzle, and not from a surface of the substrate. The Sukenari reference, as described in detail above, similarly *teaches away* by disclosing that “assist gases” are projected towards a substrate, and not suctioned away from the substrate.

Claim 40 is therefore presently allowable over the Tzeng or Sukenari references.

Reservation of Rights

In the interest of clarity and brevity, Applicant may not have addressed every assertion made in the Office Action. Applicant’s silence regarding any such assertion does not constitute any admission or acquiescence. Applicant reserves all rights not exercised in connection with this response, such as the right to challenge or rebut any tacit or explicit characterization of any reference or of any of the present claims, the right to challenge or rebut any asserted factual or legal basis of any of the rejections, the right to swear behind any cited reference such as provided under 37 C.F.R. § 1.131 or otherwise, or the right to assert co-ownership of any cited reference. Applicant does not admit that any of the cited references or any other references of record are relevant to the present claims, or that they constitute prior art. To the extent that any rejection or assertion is based upon the Examiner’s personal knowledge, rather than any objective evidence of record as manifested by a cited prior art reference, Applicant timely objects to such reliance

on Official Notice, and reserves all rights to request that the Examiner provide a reference or affidavit in support of such assertion, as required by MPEP § 2144.03. Applicant reserves all rights to pursue any cancelled claims in a subsequent patent application claiming the benefit of priority of the present patent application, and to request rejoinder of any withdrawn claim, as required by MPEP § 821.04.

CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (612) 349-9587 to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 19-0743.

Respectfully submitted,

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Date

19 March '07

By


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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Commissioner of Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this 19 day of March 2007.

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